SAMPLE MOU

Revisions to this Memorandum of Understanding will not be accepted.

Memorandum of Understanding between
The United States Environmental Protection Agency
and
[Sample Company]

I. Common Agreements and Principles

A. This is a voluntary agreement between [Sample Company] ("EPA ENERGY STAR Exit Sign Partner" or "Partner") and the United States Environmental Protection Agency (EPA), by which [Sample Company] joins the EPA ENERGY STAR Exit Sign Program. The terms of this Memorandum of Understanding (MOU) shall apply to internally-illuminated emergency exit signs sold by Partner under its own brand name(s). This MOU does not apply to exit sign retrofit kits.

B. Partner and EPA agree that the primary purpose of the EPA ENERGY STAR Exit Sign Program is to promote the manufacturing and marketing of energy-efficient equipment, thereby potentially reducing combustion-related pollution.

C. Partner and EPA agree that the use of energy-efficient equipment may also increase profits and competitiveness.

D. Partner and EPA agree that the EPA ENERGY STAR Exit Sign Program may also improve or enhance equipment's useful lifetime, customer satisfaction, and overall product quality.

E. Partner and EPA agree that publicizing the EPA ENERGY STAR Exit Sign Program is important to demonstrate the following: the concern of Partner for the environment, the vitality of the free enterprise system in reducing costs, and the capability of partnership programs to achieve environmental goals.

F. Partner and EPA agree that maintaining public confidence in the EPA ENERGY STAR Exit Sign Program is critical to achieving the shared goals of Partner and EPA.

G. Partner and EPA agree that membership in the EPA ENERGY STAR Exit Sign Program is essential to the cooperative effort to achieve the shared goals stated above.

II. Definitions

A. Exit Sign: An internally-illuminated sign that is permanently fixed in place and used to identify an exit from a building. A light source illuminates the sign or letters from within, and the background of the exit sign is not transparent. The Exit Sign is connected to only one source of power at a time (normal or emergency), and is designed to remain illuminated via an emergency

power source upon failure of the normal power supply. The emergency power source is typically either a central back-up generator or an individual rechargeable battery included in each sign.

B. Exit Sign Model: For purposes of this MOU, an Exit Sign Model is an Exit Sign in the configuration that is actually packaged and sold to end users under a unique model number or name. For Exit Sign Models with an individual rechargeable battery, the battery charger shall be included as part of the Exit Sign Model and shall be tested and qualified as a single product.

C. Luminance: The luminance of a surface is the luminous intensity in a given direction per unit area of that surface as viewed from that direction. Luminance is measured in candelas per square meter (cd/m^2). An older unit for luminance is footlamberts ($1\ fL = 3.43\ cd/m^2$).

D. Luminance Contrast: Luminance contrast quantifies the relative brightness of an object against its background. For exit signs, the relevant contrast is between the luminance of the letters and the luminance of the rest of the sign face (background). Luminance contrast can vary from zero to one. The closer the luminance contrast is to one, the more visible the letters are against the rest of the sign face. Luminance contrast is calculated as follows:

$$C = (L_{greater} - L_{lesser})/L_{greater}$$

where $C =$ luminance contrast

$L_{greater} =$ luminance of the legend or the background, whichever is the greater (cd/m^2)

$L_{lesser} =$ luminance of the legend or the background, whichever is the lesser (cd/m^2)

E. NFPA: The National Fire Protection Association (United States) develops the Life Safety Code for buildings that provides guidance for building design, construction, operation and maintenance to protect occupants from fire, smoke, and fumes or similar emergencies. Many states and localities adopt this Life Safety Code into their own Building Code standards.

F. Power Demand: The amount of power required to continuously illuminate an Exit Sign Model, measured in watts (W).

III. Effective Date of MOU and Duration

A. This MOU shall be effective when signed by both EPA and Partner.

B. Both parties agree that Partner may begin to qualify models pursuant to section IV.B., below,

beginning on January 1, 1999.

C. Both parties agree that this agreement can be terminated by Partner or EPA at any time, and for any reason, with no penalty. However, both parties agree that termination for noncompliance would only occur in accordance with the procedures of Section VI., below.

IV. EPA ENERGY STAR Exit Sign Partner's Responsibilities

A. Partner agrees to appoint a responsible representative of the company as liaison with EPA for the EPA ENERGY STAR Exit Sign Program and to notify EPA within one month of any change in liaison designation.

B. Product Qualification for the EPA ENERGY STAR Logo

Partner agrees to introduce one or more specific Exit Sign Models that meet the specifications outlined on the following page.

Energy-Efficiency Characteristic	**Performance Specification**
Input power demand	5 watts or less per face
Visibility Characteristics	**Performance Specifications**
Letter size and letter spacing	The sign shall have the word "EXIT" or other appropriate wording in plain legible letters not less than 6 in. (15.2 cm) high with the principal strokes of letters not less than 3/4 in. (1.9 cm) wide. The word "EXIT" shall have letters of a width not less than 2 in. (5 cm) except the letter "I," and the minimum spacing between letters shall be not less than 3/8 in. (1 cm). Signs larger than the minimum established in this paragraph shall have letter widths, strokes, and spacing in proportion to their height.[1]
Luminance contrast	Greater than 0.8
Average luminance	Greater than 15 candelas/meter^2 (cd/m^2) measured at normal (0°) and 45° viewing angles

[1] As in current NFPA 101, Life Safety Code, 5-10.2*

Minimum luminance	Greater than 8.6 cd/m^2 measured at normal (0°) and 45° viewing angles
Maximum to minimum luminance	Less than 20:1 measured at normal (0°) and 45° viewing angles
Reliability Characteristic	**Specification**
Manufacturer warranty for defects in materials and manufacturing	Replacement of defective parts for 5 years from date of purchase

C. Testing

1. Partner agrees to perform tests, as necessary, to determine which Exit Sign Models comply with the specification. Based on the results of these tests, Partner shall self-certify those models that it determines are compliant with the specifications outlined above. Partner may submit information to EPA on compliant models on a voluntary basis.

2. Testing methods:

Partner agrees to follow EPA Test Methods as outlined in Attachment B.

D. Training

Partner agrees to provide information about the ENERGY STAR Exit Sign Program to all of its employees whose jobs are relevant to the development, marketing, sales, and service of ENERGY STAR Exit Sign products.

Partner shall provide training materials for its product dealers and distributors. Materials shall describe the ENERGY STAR Exit Sign Program and the Partner's participation in the program, provide information about energy-efficient exit signs as well as cost and maintenance savings, and identify models that comply with the ENERGY STAR Exit Sign specifications. Materials may include specification sheets, point of purchase displays, informational fact sheets, demonstration models, etc.

E. Customer Education

1. Product Literature:

Partner shall provide general information to end users regarding the benefits of energy efficiency and energy-efficient exit signs. This information might include a description of the ENERGY STAR Exit Sign Program and a discussion of the energy savings associated with the product. Partner may determine the best manner through which to disseminate this general information to users. Examples of acceptable approaches include: special brochures provided with qualified models, sales literature, point of purchase displays, information in specification sheets, maintenance information, savings comparisons, etc. Brochures and advertisements shall be worded to avoid misleading interpretations.

Partner shall include in product materials a statement that acknowledges luminance depreciation of any light source over time, and that code requirements for average luminance may not be maintained without lamp replacement at targeted intervals during the lifetime of the exit sign. A statement shall be included such as, "The light source in this exit sign will depreciate, which can lead to a light output level that is below current building code requirements. Lamps should be replaced at regular intervals, and when they are no longer functioning, to assure safety and visibility in the event of an emergency."

2. Logo Use:

To help consumers become familiar with the ENERGY STAR Exit Sign Program, the Partner shall place the ENERGY STAR logo onto the packaging of qualified models, and on the models themselves, where practical, e.g., on the nameplate. The Partner shall also strive to include the ENERGY STAR logo in brochures, manuals, and advertisements, etc. for qualified models.

F. Proper Use of the ENERGY STAR Logo and Name

1. Partner understands that participation in the EPA ENERGY STAR Exit Sign Program does not constitute EPA endorsement of Partner or its products.

2. It is the responsibility of the Partner to associate EPA, the ENERGY STAR logo, the ENERGY STAR name, and the ENERGY STAR Exit Sign Program only with those specific models that qualify under the terms and conditions of this MOU. See EPA's Logo Usage Guidelines for more details and specific examples.

3. When the EPA ENERGY STAR logo is used, Partner agrees that it shall be accompanied by the following statement: "As an ENERGY STAR Exit Sign Partner, [Sample Company] has determined that this product meets the ENERGY STAR Exit Sign Program guidelines for energy efficiency."

When the ENERGY STAR logo is applied directly to the product, Partner may place this statement in the user's manual.

4. Partner shall not utilize the logo in a manner that directly or otherwise implies EPA endorsement of the Partner or of Partner's products.

5. Partner agrees not to alter the EPA ENERGY STAR logo.

6. If either EPA or Partner terminates this Agreement, Partner will no longer be entitled to apply the EPA ENERGY STAR logo to newly manufactured products, and will no longer make reference to the EPA ENERGY STAR Exit Sign Program so as to convey continuing involvement in the program.

V. EPA's Responsibilities

A. EPA agrees to designate a single liaison point for the EPA ENERGY STAR Exit Sign Program (i.e., ENERGY STAR Program Manager), and to notify Partner within one month of any change in liaison designation. Please send signed MOU and other correspondence to this person. (See Attachment A.)

B. EPA agrees to accept test data as submitted by Partner, whether it is self-determined or determined by an independent third party. EPA will not officially approve any individual test reports voluntarily submitted by Partner. Therefore, Partner shall not include misleading statements in product literature that imply a product is approved or certified by the EPA, i.e., Partner shall not make claims such as "this exit sign is EPA approved," or "this exit sign is EPA certified."

C. While this is a self-certifying process, EPA reserves the right to conduct tests on models bearing the EPA ENERGY STAR logo from either the open market or other available sources, or voluntarily received from Partner.

D. EPA agrees to make an effort to encourage consumer acceptance of models introduced under this agreement and bearing the EPA ENERGY STAR logo. EPA shall keep a product listing of compliant models and provide it to the public upon request in hard copy, on disk, and electronically on the World Wide Web.

E. EPA agrees to provide Partner with recognition for its public service in protecting the environment by performing analyses about the pollution prevented by corporate participants, and providing this and other program information to appropriate news media sources for publication.

F. EPA agrees to promote energy-efficient equipment, and to inform consumers about the EPA

ENERGY STAR Exit Sign Program and EPA ENERGY STAR logo by writing articles and/or cooperating with the news media by sharing information, where appropriate.

G. EPA agrees to work with Partner independently and/or in conjunction with other Partners to coordinate the placement of advertisements to promote energy-efficient equipment, educate consumers about the EPA ENERGY STAR Exit Sign Program and logo, and provide Partner with due recognition for its public service in protecting the environment.

H. EPA agrees to loan Partner, at no charge, materials from which Partner can reproduce the ENERGY STAR logo.

VI. Conflict Resolution

A. Each party agrees to exercise good faith as a general principle for resolving conflicts under the EPA ENERGY STAR Exit Sign Program.

B. Both parties agree to informally notify each other if any problems or issues arise and to work together to provide maximum public confidence in the program.

C. Procedure for Addressing Noncompliant Products

1. If EPA receives information that one or more models certified by Partner as ENERGY STAR compliant may not meet all of the conditions of this MOU, then EPA will immediately notify Partner and attempt to address and resolve the problem informally.

2. If these informal discussions do not produce a mutually agreeable resolution, EPA shall notify Partner in writing that Partner shall be terminated from the program unless it undertakes the specific corrective actions sought by EPA. Partner agrees to reply to EPA in writing within 20 business days of receiving EPA's letter. At that time, Partner shall agree to do one of the following: (a) undertake in a timely and effective manner, the corrective actions sought by EPA; or (b) voluntarily terminate this agreement. If Partner does not respond to EPA's letter within 20 business days, or does not agree to either (a) or (b), then this agreement is terminated.

D. If Partner believes that EPA is not meeting all of its commitments, Partner agrees to formally notify EPA in writing. EPA agrees to respond in writing within 20 business days of receiving Partner's letter. At that time, EPA will do one of the following: (a) undertake the corrective actions sought by Partner, or (b) explain why such corrective actions can not be undertaken.

VII. Freedom of Information Act and Confidential Business Information

Both parties understand that information provided by Partner to EPA will be treated in accordance with EPA's public information regulations under 40 Code of Federal Regulations, Part Two.

* * * * *

The undersigned hereby execute this Memorandum of Understanding on behalf of their parties. The signer of this agreement affirms that he/she has the authority to commit Partner to participation in the ENERGY STAR Exit Sign Program.

For the U.S. Environmental Protection Agency (EPA):

Signature: _____ Date: _____

Name: Paul M. Stolpman

Title: Director, Office of Atmospheric Programs

For [Sample Company]:

Signature: _____ Date: _____

Name: _____

Title: _____

ATTACHMENT A

Please complete and return with the signed Memorandum of Understanding.

EPA Contact:

Jennifer Dolin, Program Manager
ENERGY STAR Exit Sign Program
US EPA (MC: 6202J)
401 M Street, SW
Washington, DC 20460

Overnight Delivery Address:
Jennifer Dolin, Program Manager
ENERGY STAR Exit Sign Program
501 3rd Street, 4th Floor, NW
Washington, DC 20001
(202) 564 - 9073

[Sample Company]'s Contacts:

Primary Contact (To receive all materials):

Name:
Title:
Address:
City, State, ZIP:
Telephone Number:
Fax Number:
E-mail Address:
Location of US Headquarters (if applicable):

Marketing/PR Contact (To receive marketing and communications materials):

Name:
Title:
Address:
City, State, ZIP:
Telephone Number:
Fax Number:
E-mail Address:
Location of US Headquarters (if applicable):

Switchboard or main sales phone number (To be given to the public for further information on your products):_____

Telephone number:
Fax Number:
Web site:

ATTACHMENT B

Test Methods for ENERGY STAR Exit Signs

Meeting the specification

To meet the specification, the Exit Sign Model must be tested under the following conditions, all performance measurements and calculations must be completed as described herein, and all the results must comply with the requirements stated in the MOU.

Conditions for testing

Testing shall be conducted in clear (non-smoke) conditions.

All measurements shall be made in a stable ambient air temperature of 25°C ± 5°C.

All voltages shall be provided within ± 0.5% by a constant voltage power supply.

Prior to input power or photometric measurements, the Exit Sign Model shall be operated at the rated input voltage for a period of 100 hours. In addition, Exit Sign Model with an internal battery shall be operated from the battery for one-and-one-half hours, the minimum period of emergency operation specified in NFPA 101, Life Safety Code, 5-9.2.1*, and then recharged for the period specified by the sign manufacturer.

All of the light sources in the sign must produce light throughout the first 100 hours of operation, before any measurements are taken, in order to meet the requirements of this specification.

Input power measurement

The input power of the Exit Sign Model in its entirety shall be measured with an appropriate True RMS Watt Meter at the rated input voltage which represents normal operation. For an Exit Sign Model that includes a battery, the battery circuit shall be connected and the battery fully charged before any measurements are made.

Photometric measurements

Each of the photometric characteristics of the sign shall be measured at three voltages:

- The rated input voltage which represents normal operation.
- A voltage corresponding to the minimum voltage provided either by the internal battery or a remote emergency power source after one minute of operation, as applicable.

- A voltage corresponding to the minimum voltage provided by the internal battery after the marked rated operating time or at 87.5% of the rated emergency input voltage for signs intended to be connected to a remote emergency power source. The level of illumination of the exit sign shall be permitted to decline to 60 percent of the initial illumination level (specified in Section IV.B of the MOU) at the end of the emergency lighting time duration.

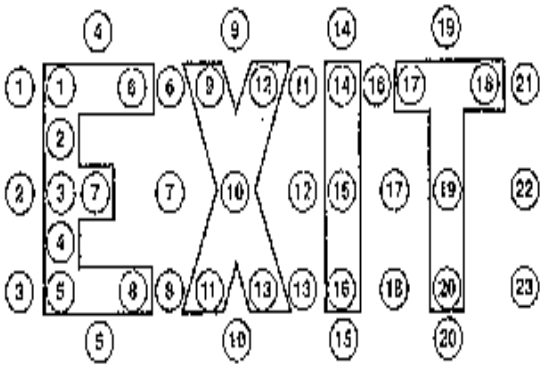
All measurements shall be taken with less than 0.01 footcandles of external illumination on the face of the Exit Sign Model.

The luminances shall be measured from two viewing angles: 1) from normal (0°) to the face of the exit sign, and 2) from 45° to the face of the exit sign.

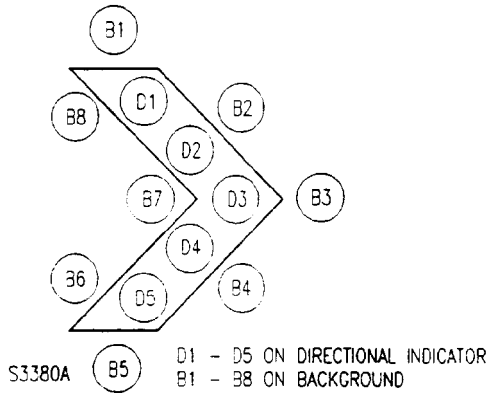
Luminance measurement positions

The positions where the luminances for the legend and background of the exit sign are to be measured are shown below.[2] For instances in which Exit Sign Model has a directional indicator, the positions where the luminances for the directional indicator and its background are to be measured are also shown below.[3]

Measurement of exit sign luminance



Measurement of directional indicator



The luminances for each numbered position in the legend and directional indicator shall be measured over a circular area as large as possible while maintaining at least a 1.6 mm distance

[2] "Measurement of exit sign luminance" in NFPA 101, Life Safety Code, Figure A-5-10.3.3

[3] Found in Figure 40.9 "Directional indicator luminance measurement points" in UL 924, Standard for Safety: Emergency Lighting and Power Equipment, May 9, 1995.

between the perimeter of the circular area and the adjacent border. The positions for measuring the luminances of the background shall lie within 25.4 mm of the legend and directional indicator but no closer than 1.6 mm to the border.

Luminance calculations

- *Average luminance of the legend or background of the legend, whichever is higher, and where applicable, the directional indicator or its background, whichever is higher*. For each, the mean of the luminances of all the positions measured.

  Luminance contrast ratio:

  $$\text{Contrast} = \frac{Lg - Le}{Lg}$$

  Where Lg is the greater luminance and Le is the lesser luminance, either the variable Lg or Le may represent the legend or directional indicator, and the remaining variable shall represent the respective background.

- *Minimum luminance of the legend or background of the legend, whichever is higher, and where applicable, the directional indicator and its background, whichever is higher*. For each, the lowest luminance of all the points measured.

- *Luminance uniformity of the legend or background of the legend, whichever is higher, and where applicable, the directional indicator and its background, whichever is higher*. For each, the ratio of the highest luminance of any position measured to the lowest luminance of any position measured.